



Crowe Forest Management, LLC

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Zuter, Irish, and Klepsteen Living Trust
c/o Kevin Jordan
Schrader Real Estate and Auction Co.
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Recently at the request of Kevin Jordan of Schrader Real Estate and Auction Company, I inspected the woods measuring approximately 40 acres located on Farm B – Tract 10 in Assyria Township of Barry County, Michigan. The purpose of the inspection was to evaluate the timber on the property.

Access: Access to this property is difficult due to the creek and wetland located at the south end of the 40 acre parcel.

Soils: According the USDA – Web Soil Survey for Barry County Michigan the main soil types in the upland areas are Ostemo sandy loam (12 to 18 % slopes ~ 18 acres) and (18 to 40 % slopes ~ 5 acres) and Perrington loam (6 to 12 % slopes ~ 4 acres). The upland soils are productive and suited to growing most hardwood species. The depressional are adjacent to the creek is Houghton muck (approximately 11 acres. This is a very poorly drained soil that is limited to growing water tolerant species due to excessive wetness. Most of this area is open and does not have much desirable timber.

Woodland History – Harvesting: There appear to have been at least two selective timber harvests in the woods with the last one approximately 10 or 15 years ago and an earlier one approximately 10 years prior to that. Identifiable stumps included oak, maple, walnut, and cherry.

Woodland Description: Overall this is a nice beech – maple stand with good potential. The woods is moderately to well stocked with basal areas ranging from 60 to 100 square feet per acre. A basal area of 80 to 90 is considered to be desirable. The trees are generally medium sawlog sized with most ranging from 14 to 18 inches, DBH (diameter at breast height) with scattered larger trees up to 24 inches, DBH. The main species is sugar maple representing approximately 2/3 of the stand. Other significant species include black cherry, beech, and basswood along with a good scattering of black walnut (especially in the northeast and southwest corners of the woods). The trees are generally tall and straight and the quality is generally good to very good.

Management Recommendations: This woods does has good potential in the future. A light improvement harvest would be recommended at this time. The harvest should concentrate on thinning the lower quality and less desirable trees from the woods and reducing the number of

beech. The recommended harvest would likely be less than \$10,000. A better estimate could be made after harvest trees are selected. Most of the higher value trees such as the black walnut and better sugar maple and black cherry, although currently merchantable are 10 to 15 years from being economically ready for harvest. Based on the size, quality and condition of these trees they are estimated to be increasing at more than 10 percent annually and should not be sold at this time. Harvest trees should be selected based on problems or lack of potential not their current value as most of the higher value trees are earning higher financial returns.

Professional Forestry Assistance: We strongly recommend working with a private forester when selecting the harvest trees and when marketing the trees in order to maximize both the current but also the long term income and woodland health and productivity. The trees should be sold as a competitive bid sale with all companies bidding on the same trees under the same terms to ensure a fair price is obtained for the timber. The harvests should use a combination of group selection to create the conditions to promote desirable regeneration and single tree selection to commercially thin less desirable trees and salvage any trees that develop problems. In addition all harvest should concentrate on improving the future condition and long-term productivity of the woods. In general, if a tree will decline before the next harvest it should be taken at this time assuming it does not adversely affect other trees or the regeneration. Conversely if a tree will improve at an acceptable rate it should be left, especially if it is a high quality tree of a desirable species. A common analogy would be to always cull the herd, maintain your high quality stock therefore producing the best quality possible.

If you have any questions regarding this woodland I can be reached at 260-704-1655 during the day or most evenings.

Sincerely

Tom Crowe
Crowe Forest Management, LLC